

WOOD GOLF CLUB HEAD

BACKGROUND OF THE INVENTION

1. Field of the Invention

5 The present invention relates generally to a golf club, and more particularly to a wood golf club head.

2. Description of the Related Art

 A conventional wood golf club head has a hollow housing which a center of gravity is positioned at bottom and rear as possible. In such point, a crown, which is a top portion of the housing, is made as thinner as possible. The conventional crown is made of a metal, which is too heavy to make the center of gravity of the golf club head at bottom and rear. In the present days, there is a crown made of composite material, which the composite material is lighter in weight, so that the center of gravity of the golf club head is positioned lower.

15 The only problem of the composite material crown is that how to couple the crown to the metallic housing in a firm condition.

SUMMARY OF THE INVENTION

 The primary objective of the present invention is to provide a golf club head, which the center of gravity thereof is lower.

 The secondary objective of the present invention is to provide a golf club head, which has a well performance in absorption of vibration.

 According to the objectives of the present invention, a golf club head has a metallic head housing and a nonmetallic crown, wherein the head housing has a face, a sole, a heel, a toe and a neck and is open at a top thereof, and the crown is coupled to

the top of the head housing. The crown has two arms coupled to the heel and the toe of the head housing respectively whereby the crown and the head housing are coupled together in a firm condition.

In addition, the head housing is provided with two gaps respectively at the heel and the toe. The gaps are extended from tops of the heel and the toe to where adjacent to the sole, or to the sole. The arms of the crown shield the gaps respectively. With such structure, the golf club head is lighter such that the head can be made into a greater size or can be mounted with more weight devices at the sole to adjust the position of the center of gravity. Furthermore, the crown can be made of a composite material, such as reinforced fiber resin, so that the crown is lighter in weight and has a well elasticity. While the face is hitting a ball, the crown is deformed elastically to prolong the time of the face contacted with the ball, such that the golf club head will have well properties of ball control and absorption of vibration.

15 BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a first preferred embodiment of the present invention;

FIG. 2 is an exploded view of the first preferred embodiment of the present invention;

20 FIG. 3 is a sectional view along the 3-3 line of FIG. 1, and

FIG. 4 is an exploded view of a second preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

25 As shown in FIGS. from FIG. 3 to FIG. 5, a golf club head 10 of the first

preferred embodiment of the present invention comprises:

A metallic head housing 20 has a face 21, a sole 22, a rear 23, a toe 24, a heel 25, and a neck 26. The head housing 20 is hollow and has an opening at a top thereof. Around the top of the head housing 20 is an annular shoulder portion 27 and at
5 the toe 24 and the heel 24 is a gap 28 respectively. The gaps 28 are extended downwardly from the shoulder portion 27 to the toe 24 and the heel 24 at where adjacent to the sole 22 respectively.

A nonmetallic crown 30, which is made of carbon fiber prepreg epoxy resin, or other fiber reinforced resin or plastics in the present preferred embodiment, has two
10 arms 31 at opposite sides thereof. The crown is a thin plate to be coupled to the top of the head housing 20, in which the shoulder portion 27 is attached to a bottom of the crown 30 and the arms 31 of the crown 30 are attached on the toe 24 and the heel 24 to shield the gaps 28 respectively.

In assembly, glue is provided to the shoulder portion 27 and sidewalls of the
15 gaps 28 of the head housing 20 to stick the crown 30 thereon.

The arms 31 serve like a clip to hold the crown 30 on the head housing 20 and make the crown 30 having more portions to be stuck with the head housing 20 so that the crown 30 is coupled with the head housing 20 in a firm condition, even the golf club head of the present invention has been used for a long time, the crown is not
20 loose.

In addition, the crown of the present invention is made of a composite material, which is lighter in weight, and that makes the golf club head has a center of gravity at lower.

The golf club head 10 of the present invention has gaps between the face 21
25 and the rear 23, and in the gaps 28 are filled with the arms 31 of the crown 30. While

the face 21 is hitting a ball (not shown), the impact will transmit the arms 31 first and the composite material arms will absorb the impact to make the golf club head 10 of the present invention has a well property of absorption of vibration.

As shown in FIG. 5, a golf club head 40 of the second preferred embodiment
5 of the present invention is consisted of a metallic head housing 50 and a nonmetallic crown 60. The differences of the second preferred embodiment from the first preferred embodiment are that the head housing 50 has two gaps 51 are extended to a sole 52 thereof and has a plurality of holes 54 at a rear 53 thereof. The crown 60 has two arms 61 to shield the gaps 51 respectively and a tail 62 to be coupled to the rear 53 to shield
10 the holes 54. In such structure, more weight of the golf club head 40 is reduced to make the designer has less limitation in the design of the golf club head.